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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/056,295	01/23/2002	Erhard Schreck	3123-424 / 20011.03	9782

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EXAMINER	
KLIMOWICZ, WILLIAM JOSEPH	
ART UNIT	PAPER NUMBER
2627	

DATE MAILED: 10/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/056,295	SCHRECK ET AL.	
	Examiner	Art Unit	
	William J. Klimowicz	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 September 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *108-162* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *160 and 161* is/are allowed.

6)☒ Claim(s) *108-118,121-133,136-145,147-153,155-159 and 162* is/are rejected.

7)☒ Claim(s) *119,120,134,135,146 and 154* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 September 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restriction

The Applicants have previously elected the invention drawn to Group II, Species VI, Sub-species A. The Applicants allege that "[t]he newly-added claims [i.e., claims 108-157] are all believed to read on the previously elected species (Group II, Species VI)." See Applicants' response filed on April 18, 2006.

Thus, examination of claims 108-162 has been undertaken, with the results articulated, *infra*.

Claim Status

Applicants have voluntarily cancelled claims 1-107, inclusive.

Claims 108-162 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 108-118, 121-133, 136-145, 147-153, 155-159 and 162 are rejected under 35 U.S.C. 103(a) as being unpatentable over Asai et al. (US 5,476,700).

As per claims 108, 125, 141, 150, 158, 159 and 162, Asai et al. (US 5,476,700) discloses a hard (compact) disk for use in a hard optical disk drive and method for manufacturing such a hard (injection-molded) disk, comprising an asymmetrical storage disk (1) that is adapted to be rotatably coupled to a drive housing (via a conventional spindle motor as in CD-ROM drive or disk-man portable CD player), the storage disk (1) including a body region (base of disk, internal area between two exposed surfaces of disk), a first side region that stores data (5) (exposed bottom side of disk as seen in FIG. 1b) and a second side region (e.g., the upper exposed side of disk (1) as seen in FIG. 1b) opposite the first side region, the body region being positioned between the side regions, the second side region (upper side as seen in FIG. 1b) including an exposed outer flat section (e.g., upper flat surface as seen in FIG. 1b) and a raised stiffener (10), as per claim 151, 158, 159 and 162 or outer ridged section as per claims 125, 150, that increases the rigidity of the storage disk (1) due to the raised profile of the disk, which is offset from groove (3) - if the raised profile (10) were indeed not provided, the groove (3) provided on the opposite side thereto would severely render the disk weakened at such a thin point, relative to the opposing flat portions of the disk (1)), the stiffener (10) extending at least approximately 0.001 millimeters away from the outer flat section (e.g., see COL. 4, lines 35-36), as also per claim 130.

As per claims 108, 125, 141, 150, 158, 159 and 162, although Asai et al. (US 5,476,700) does not expressly disclose a "hard disk drive" used in association with the hard compact disk (1) (which is hard relative to a conventional floppy disk), Official notice is taken that hard disk drives using optical disk media of the type disclosed by Asai et al. (US 5,476,700) are

notoriously old and well known and ubiquitous in the art; such Officially noticed fact being capable of instant and unquestionable demonstration as being well-known.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the hard compact CD disk as taught by Asai et al. (US 5,476,700), in its intended environment, including a connectional and ubiquitous optical hard disk drive.

The rationale is as follows: one of ordinary skill in the art would have been motivated to utilize the disk as taught by Asai et al. (US 5,476,700), in its intended environment, including a connectional and ubiquitous optical hard disk drive in order to retrieve the information (5) stored on the disk via a conventional transducing means and spindle means, while advantageously using an optical disk which minimize damages in the disk surface, as espoused by Asai et al. (US 5,476,700).

As per claims 109, wherein the stiffener (10) is at least partially exposed (e.g., FIG. 1b).

As per claims 110, 142 and 143, wherein the stiffener is shaped so that a portion of the stiffener (10) (inner portion at (15)) is non-parallel to the outer flat section (e.g., the side wall of the rib (50)).

As per claims 111 and 128, wherein the stiffener is shaped so that a portion of the stiffener (50) is *substantially* perpendicular to the outer flat section (e.g., the outer portion of (10) at (17)).

As per claims 112, 129 and 158, wherein the stiffener (10) is configured to guide the flow of fluid within a drive housing since when the disk (1) spins on a conventional spindle, since when CD disk spins in a disk drive, it generates air flow, and such air flow, when striking a non-

flat surface on the disk, will indeed have it direction changed, and since this surface is projected away from the recording surface by being on the non-recording/reproducing side associated with a read/write (read or write) head pickup, as per claim 113, such a stiffener ridge is configured to guide the flow of fluid impinging thereon at least partially away from the read/write head.

As per claim 114, wherein the second side region (upper surface as seen in FIG. 1b) has an exposed second side surface that includes the outer flat section and an outer ridged section (10), the outer ridged section extending at least approximately 0.001 millimeters away from the outer flat section (e.g., see COL. 4, lines 35-36).

As per claim 115 and 136, wherein the outer ridged section extends less than approximately 2.0 millimeters away from the outer flat section (e.g., see COL. 4, lines 35-36).

As per claims 116 and 131, wherein the storage disk has an inner diameter (portion of disk nearest hole (2)) and an outer diameter (outer peripheral portion of disk), and wherein a width of the stiffener (10) increases along a direction from the inner diameter toward the outer diameter (i.e., as seen in profile in FIG. 1b, as one proceeds from the hole (2) toward the peripheral edge of the disk, the ridge initially increases in thickness width).

As per claims 117 and 132, wherein the storage disk (1) has an inner diameter (portion of disk nearest hole (2)) and an outer diameter (outer peripheral portion of disk), and wherein a width of the stiffener (10) decreases along a direction from the inner diameter toward the outer diameter (i.e., as seen in profile in FIG. 1b, as one proceeds from the hole (2) toward the peripheral edge of the disk, the ridge initially increases in thickness width, but after reaching a peak, then begins to decrease in width thickness as seen in FIG. 1b).

As per claims 118, 133, 145 and 153, wherein the storage disk (14) has an inner diameter and an outer diameter, and wherein a width of the stiffener (10) is substantially uniform (viewed from above as in FIG. 1a) along a direction from the inner diameter toward the outer diameter (FIG. 7).

As per claim 121, 122, 123, 137, 138, 139, 147, 148, 149, 155, 156 and 157, wherein the first side region (lower surface of disk as seen in FIG. 1b) has a mass that is different than a mass/density/thickness of the second side region (upper surface of disk as seen in FIG. 1b) due to the added mass/density/thickness of the additional material of ring (10) on one surface only.

As per claim 124, the first side region (e.g., the upper surface of disk (1) as seen in FIG. 6) is substantially planar (the signal area (5) represented by the pits is exaggerated - try feeling such signal pits on a conventional CD, and it will feel completely smooth).

As per claim 126, wherein the outer flat section is substantially planar - FIG. 1b.

As per claim 127, wherein the storage disk (1) includes a stiffener (10) that increases the rigidity of the storage disk (1), the stiffener (10) being at least partially exposed - FIG. 1b.

As per claim 140, wherein the first side region (e.g., the lower surface of disk (1) as seen in FIG. 1b) has a substantially planar first side surface, and wherein the outer flat section is substantially parallel to the first side surface - FIG. 1b.

As per claims 144, 152 and 159, wherein the stiffener is so shaped such that width of the stiffener (10) changes along a direction from an inner diameter toward an outer diameter of the storage disk (1)) (i.e., as seen in profile in FIG. 1b, as one proceeds from the hole (2) toward the peripheral edge of the disk, the ridge initially increases in thickness width, but after reaching a

peak, then begins to decrease in width thickness as seen in FIG. 1b, thus going in an up direction, and then in a down direction).

Response to Arguments

Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection, such new grounds of rejection based upon Applicant's amendments to all pending independent claims, and the presentation of new independent claims.

Allowable Subject Matter

Claims 119, 120, 134, 135, 146 and 154 are tentatively objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 160 and 161 are tentatively indicated as allowable, pending an updated search at a later date.

As explicitly indicated in the previous Non-Final Office action, this objection is tentative based on any amendments to the claims by the Applicants not directly rewriting in independent form including ***all*** of the limitations of the base claim and any intervening claims and/or a further update of the art at a future date.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (571) 272-7577. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Thi Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

William J. Klimowicz
Primary Examiner
Art Unit 2627

WJK